

ADAPTIVE WINDOW-SIZE SELECTION IN TRANSFORM CODING

ABSTRACT

A transform coder adaptively configures window sizes for transform coding in a two-pass process to maximize coding efficiency, while achieving necessary time resolution to avoid pre-echo. In a first pass, the coder places small size windows over detected transient regions of an input signal in an open-loop window configuration process. In a second pass, the coder adjusts the window size configuration according to measurements of the achieved quality in a closed-loop window configuration process. Where quality measurement shows unacceptable quantization noise, the coder increases window size. Where pre-echo is detected, the coder reduces window size within coding bit rate constraints.

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